

# The cause of MIT's major power loss

*A look behind the  
scenes at MIT's  
cogeneration plant*

By John A. Hawkinson  
STAFF REPORTER

What actually happened when MIT and much of Cambridge lost power last Thursday night? Why didn't MIT's 20 megawatt cogeneration turbine power the campus like a lighthouse in a sea of Cantabrigian darkness? What was the root cause of the failure?

MIT's Central Utilities Plant, in Building 42, has a gas turbine that can supply up to about 22 megawatts of electrical power to most of MIT's campus south of Albany St. But the campus regularly draws 25 MW or more, so the cogen turbine cannot supply it all — the balance comes from NSTAR, the local utility.

While the cogen plant provides a measure of redundancy, that's not its primary purpose. It exists to save energy and improve efficiency by generating heat and electrical power simultaneously.

(The plant is called cogeneration because it produces both electricity and steam. The plant burns fuel, usually natural gas, which mixes with air under compression and spins the gas turbine to produce electricity. The same hot gases are used to boil water and produce steam, which is used to both heat the campus and to run chillers that provide cooling.)

## Outage begins

At 4:24 p.m. on Nov. 29, an automated NSTAR relay detected a disturbance and took a 115 kilovolt underground transmission line out of service, affecting 19,000 customers, according to NSTAR's early diagnosis. NSTAR spokesman Michael Durand said that NSTAR's analysis was preliminary and that a more detailed investigation was ongoing.

The 115 kV line was one of two parallel lines that would normally back up each other. But maintenance crews were working on the other line, so it was unavailable.

That work is part of NSTAR's "Cambridge Cooling Line Reliability Project," see <http://nstarcambridge.org>. The transmission lines connect NSTAR's Alewife East and Putnam Stations, and serve all of Cambridge east of Harvard Square, according to NSTAR filings with the city. The work is expected to increase the lines' load capacity by 20–40 percent. The lines date from 1988 and each consists of three copper cables in an 8 5/8" steel pipe surrounded by dielectric fluid.

Large parts of Cambridge lost power. It affected East Cambridge, Kendall Square, and MIT, as well as many sections along Massachusetts Avenue up to Harvard.

Power, Page 9



ELIJAH MENA—THE TECH

Building 42 houses a gas turbine that can supply up to about 22 megawatts of electrical power. However, it normally supplies only a fraction of the electricity used on campus.

# Course 17 head, Sloan dean to leave MIT

*Richard Locke PhD '89 to direct international studies institute at Brown*

By Anne Cai  
NEWS EDITOR

Richard M. Locke PhD '89, deputy dean of MIT Sloan School of Management and head of the Department of Political Science, will become the director of Brown University's Thomas J. Watson Institute for

International Studies in July 2013, Brown announced last Wednesday.

"This was a difficult decision since I am so attached to MIT," wrote Locke in an email to the political science department yesterday morning. "But after nearly 24 years on the faculty (and five and a half years as a

graduate student before then), I feel that it is time to try new things in a new place. The Watson Institute provides me with the right mix of challenge and opportunity that I am looking for in this next phase of my professional life."

Appointed after an "international search," according to

Brown University, Locke will be stepping down as deputy dean of Sloan and head of the political science department on June 30, 2013.

"Richard Locke is a collaborative academic leader whose distinguished scholarly career,

Locke, Page 12

## 'The Film Experience' by the Chorallaries



TAMI FORRESTER—THE TECH

Brian G. Coffee '13 performs a solo for the song "Hands" by Jewel during the Chorallaries' fall concert on Saturday night in 10-250.

## UA launches review of W20 and restaurant vendors

Do you have an idea of a restaurant you'd like to see in the student center? On November 5, 2012, the Undergraduate Association (UA) Special Projects committee and the UA working group on dining announced a review of the building with a focus on potential new vendors and changes to the second floor. A website, <http://ua.bonfireapp.com/ideas> was launched to solicit student opinion on the subject, which will be aggregated and presented to the Division of Student Life (DSL). The site allows students to submit ideas and upvote or downvote existing ideas. As of publication, the most popular restaurant suggestion is Starbucks, with 320 points, followed by Panera Bread with 270 points. The website has received roughly 100 ideas from undergraduates, with several hundred comments and up/down votes.

According to Haldun Anil, UA Public Relations and Strategic Planning Committee Chair, the UA group plans to review and aggregate the suggestions submitted on Bonfire for further discussion on both the website and in-person student forums.

W20 dining, Page 12

## IN SHORT

**Pre-registration for IAP and spring is now open!** Visit <http://student.mit.edu/catalog/index.cgi> to pick your classes.

**Know your end-of-semester**

**rights!** Rules about classwork are online at [http://ua.mit.edu/issues/educational\\_policy/violations/](http://ua.mit.edu/issues/educational_policy/violations/). If you see a violation, fill out the form or email [violations@mit.edu](mailto:violations@mit.edu).

**S3 has extended hours and ad-**

**ditional walk in hours for the end of term!** From Dec. 3 — 14, S3 will be open from 9 a.m. — 6 p.m. Monday — Thursday and until 5 p.m. on Fridays with walk in hours from 9 a.m. — 10 a.m. and 2 p.m. — 3 p.m. daily.

**Balfour will be on campus today** from 10 a.m. — 3 p.m. in Lobby 10 and on Dec. 5 and 6 from 11:30 a.m. — 4:30 p.m. if you need anything for your brass rat!

**Send news information and tips** to [news@tech.mit.edu](mailto:news@tech.mit.edu).

## 'INFINITE CORRIDOR EAST'

Expansion for MIT in the works.  
**NEWS, p. 10**

## BASKETBALL BEATS NEWBURY

Men's basketball wins 91-76.  
**SPORTS, p. 16**



## LIMITLESS

A look at Asian Dance Team's latest performance.  
**PHOTO, p. 8**

## ONE DAY I GO TOO FLY

Chronicling the journey of five students from Africa to MIT.  
**ARTS, p. 14**

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An article in the same issue about MIT's power outage mistakenly referred to James Reed as the area director for Next House. He is the area director for New House.

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## Saturday Stumper by Anna Stiga

Solution, page 11

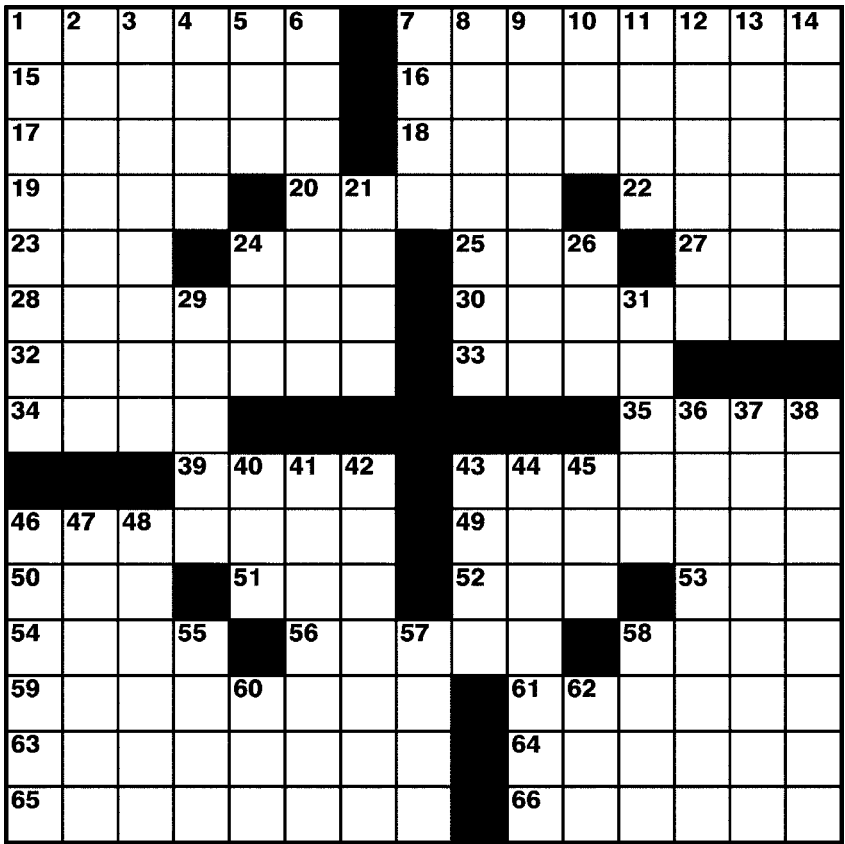
### ACROSS

- 1 Pocket attachment, at times
- 7 Source of some blasts
- 15 "Gangsta's Paradise" rapper
- 16 Dick Tracy Oscar nominee
- 17 Do some pitching, perhaps
- 18 Take hold of
- 19 Petting-zoo sounds
- 20 Drive out
- 22 Moving-around sound
- 23 Something used for shortening
- 24 It may make you jump
- 25 Major medieval nutrition source
- 27 Cheat, with "out"
- 28 A scream
- 30 Made a deft turn
- 32 Warrior of 1 Samuel
- 33 Restrain
- 34 Sticking point
- 35 Little pests
- 39 Ear covering
- 43 Wipe the slate clean
- 46 Top-rated film
- 49 One of the elite
- 50 Bow shape
- 51 Name meaning "beloved"
- 52 Burden
- 53 Franchise with a "Hard Evidence"  
video game
- 54 "Backbone" of forces
- 56 It's blown up for viewing
- 58 Next

59 Expression of wishful thinking  
61 Relic of the Han Dynasty  
63 Highbrows  
64 Subtlety  
65 Person coming back  
66 Particle detector co-creator

**DOWN**

- 1 They're tracked by Canada's Radarsats
- 2 Offering
- 3 Former Columbia Pictures owner
- 4 "\_\_\_, the love of women!": Byron
- 5 Brink
- 6 Devise
- 7 Errand runner
- 8 Typesetting instruction
- 9 Called attention to
- 10 Southern pie filling
- 11 Bulk freight handler
- 12 Soldier's wear
- 13 Lure
- 14 Secure offshore
- 21 Banter
- 24 Ostrich feather product
- 26 Diarist in a Twain story
- 29 Restrictive
- 31 Passes by
- 36 Identical
- 37 Proximity
- 38 Freelance correspondent
- 40 Team \_\_\_
- 41 Educational activity



42 C, for C major  
43 Have standing  
44 Taking up?  
45 Panama Canal's lock complement  
46 "Pearl of the Orient" capital  
47 Little pest

48 Gets moving  
55 Let go with  
57 Get moving  
58 Subject of King Rama IX  
60 You may see it before long  
62 Sign for a line



by Jorge Cham



WWW.PHDCOMICS.COM

# Sudoku I

Solution, page 11

	1							
				1		9		8
4			9		3		7	5
	7		3					6
5		6	2		1	7		4
8					6		5	
7	4		1		2			9
9		3		7				
							4	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

# Sudoku II

Solution, page 11

	8		5	9				6
					7			3
5				1			7	
		2			1	6		5
	6	3		5		2	4	
4		5	2			9		
	5			6				9
9			7					
6				2	9		5	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

EACH DATE'S SIZE REPRESENTS HOW OFTEN IT IS REFERRED TO BY NAME  
(E.G. "OCTOBER 17TH") IN ENGLISH-LANGUAGE BOOKS SINCE 2000  
(SOURCE: GOOGLE NGRAMS CORPUS)

in months other than September, the 11th is mentioned substantially less often than any other date. It's been that way since long before 9/11 and I have no idea why.







# ADT

MIT's Asian Dance Team performed last Saturday in their show "Limitless."



MENG HENG TOUCH—THE TECH

Angela O. Zhang '15 (left) and Vivian A. Lee '12 perform a dance called "Season in Bloom."



MENG HENG TOUCH—THE TECH

Joy Chen '14 performs the Korean modern fusion dance "A Li Lang."



MENG HENG TOUCH—THE TECH

The Asian Dance Team performs the dance "Genie (Tell Me you Wish)" at their Fall 2012 Showcase called "Limitless" in Kresge Little Theater.



MENG HENG TOUCH—THE TECH

The full company of the ADT bows after closing their Fall 2012 Showcase.



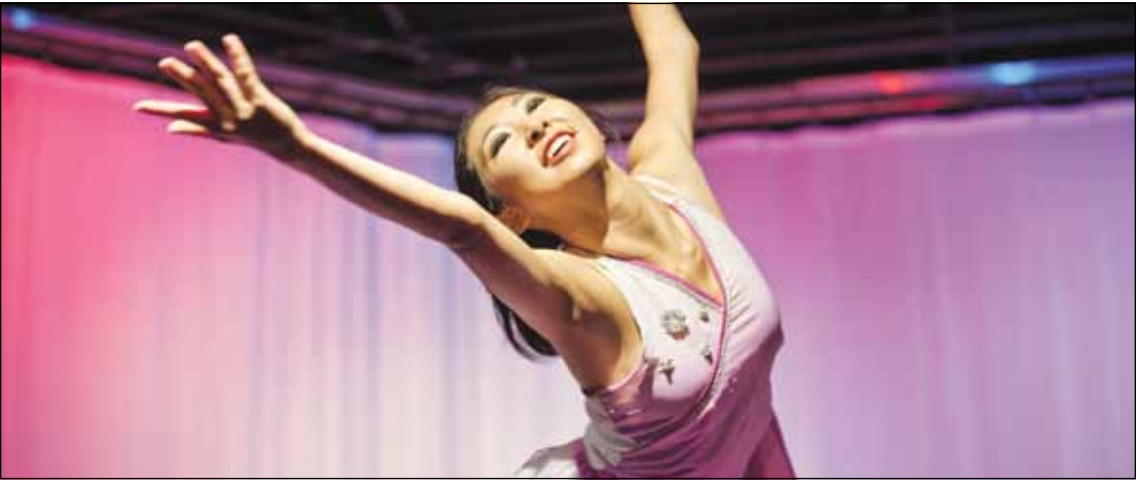
MENG HENG TOUCH—THE TECH

Joy Chen '14 performs in the Korean pop dance "Where You At."



MENG HENG TOUCH—THE TECH

(Left to right) Vivian A. Lee '12, Angela O. Zhang '15, and Jocelyn Lu '14 finish their dance "Season in Bloom" with a trio-ending post.



MENG HENG TOUCH—THE TECH

Jocelyn Lu '14 also performs in the dance "A Li Lang."



# A look at the function of MIT’s cogeneration plant

**Power**, from Page 1

MIT was using 27 MW: 22 MW from cogen, and 5 MW from NSTAR. The cogen turbine couldn’t supply the extra load, so it shut down automatically, as designed. MIT was without power, just like much of Cambridge.

In buildings throughout the campus, generators start automatically. They power emergency lighting, elevators, life-safety equipment, critical research equipment, etc. In some buildings, computer network equipment is on emergency power.

## In buildings throughout the campus, generators start automatically.

Within the main group, this emergency power comes from a single large generator located at the Central Utilities Plant. But newer buildings are required to have their own generators, so scores of generators started all around campus. The emergency power circuits are connected to automatic transfer switches that switch them to the generator power. Generators are designed to start within a few seconds of an outage.

### Central Utilities Plant

At the plant, a number of things have to happen after power fails before the turbine can start generating electricity again. The process takes hours. The first order of business is to start up a steam boiler and restore steam pressure, according to Randall D. Preston, director of utilities for Facilities.

Meanwhile, NSTAR was trying to restore power. Within 20 minutes, NSTAR was able to restore power to 5,500 customers (29 percent of those affected), using remote switching technology and powering them from other parts of the grid, Durand said. For instance, the traffic signal at Main and Vassar was running, but signals on Mass. Ave. were not. Everybody else, including MIT, would have to wait.

After steam is available, MIT’s attention can turn to the cogeneration turbine. MIT can operate the turbine in “island” mode,

disconnected from NSTAR’s grid. Preston said that MIT will try to do this unless NSTAR has estimated the outage will be short — but even then they’ll prepare for the possibility of no NSTAR power. MIT does not require NSTAR’s permission to operate in island mode.

A number of services need to function before the gas turbine can operate, Preston said. They include compressed air, cooling water, and exhaust ventilation. Without those, the turbine cannot run. And, of course they need to disconnect from NSTAR to avoid trying to power all of Cambridge.

Plant operators also need to clear any alarms that the turbine control system might report. They need to make sure that neither the turbine nor any other critical component was damaged when the power failed.

The best case is “probably an hour,” Preston said, “but realistically it takes one to two hours.”

Once they’re ready to go, they start by disconnecting almost all the circuits that feed the campus from the plant, so that the turbine can start with a known low load. They then start the turbine.

Then, they slowly add campus circuits to the turbine to control its load and warm up the heat recovery steam generator that captures the heat from the turbine’s exhaust.

“We were at the point of pushing the start button,” Preston said, when NSTAR restored power.

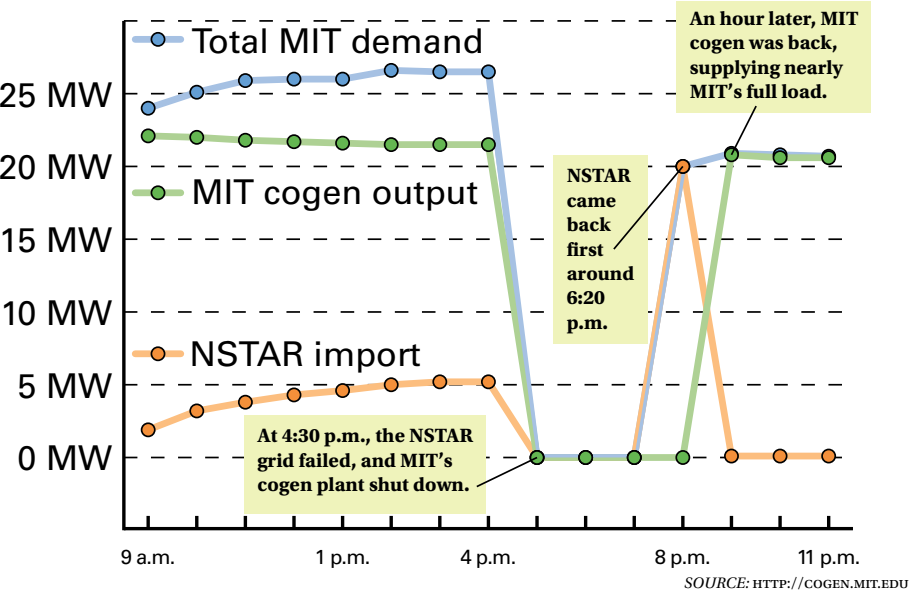
But because MIT is such a large customer, NSTAR treats it carefully, and wants to bring back large loads slowly.

“NSTAR asked us to wait 15 minutes,” Preston said. And the 15 minutes dragged on to 20 minutes. But Facilities used that time to reconnect the campus circuits that they had disconnected in preparation for starting the cogeneration turbine. Meanwhile, the traffic signal at 77 Mass. Ave. was back on.

What if NSTAR hadn’t come back? Preston said that Facilities would have to leave some portions of the campus without power until they could get unnecessary loads removed from the sections that were powered up first.

“In general, we would power up the campus circuits serving major research buildings

## MIT electrical power, Thu Nov. 30



**MIT was consuming 27 megawatts at the time of the power failure on Thursday.** MIT’s power plant provided 22 megawatts, and 5 megawatts was being supplied by NSTAR. Chart based on hourly samples.

and critical facilities first, and then go from there,” Preston said.

**NSTAR’s effort**

Why did it take NSTAR two hours? Durand said the time taken is actually “expected and normal to get that kind of transmission line back in service given the detailed analysis and numerous restoration steps involved.” NSTAR was “all hands on deck” including every available management and field crew, he said.

NSTAR had to test the 115 kV line to determine if there was a fault in it. Much of the time is spent eliminating possibilities and making sure that the situation is “what we believe it is,” Durand said.

NSTAR’s preliminary determination was that the relay was operating in error, and there was no damage to the line. “The relay

sensed something that didn’t happen,” Durand said.

After concluding that the relay had misoperated, it had to be removed from service.

**Because MIT is such a large customer, NSTAR treats it carefully, and wants to bring back large loads slowly.**

Durand said Friday that the parallel 115 kV transmission line which had been out of service for maintenance was expected to be back in service on Saturday. No NSTAR workers were injured in either the outage or the response.

# STILL THIRSTY?

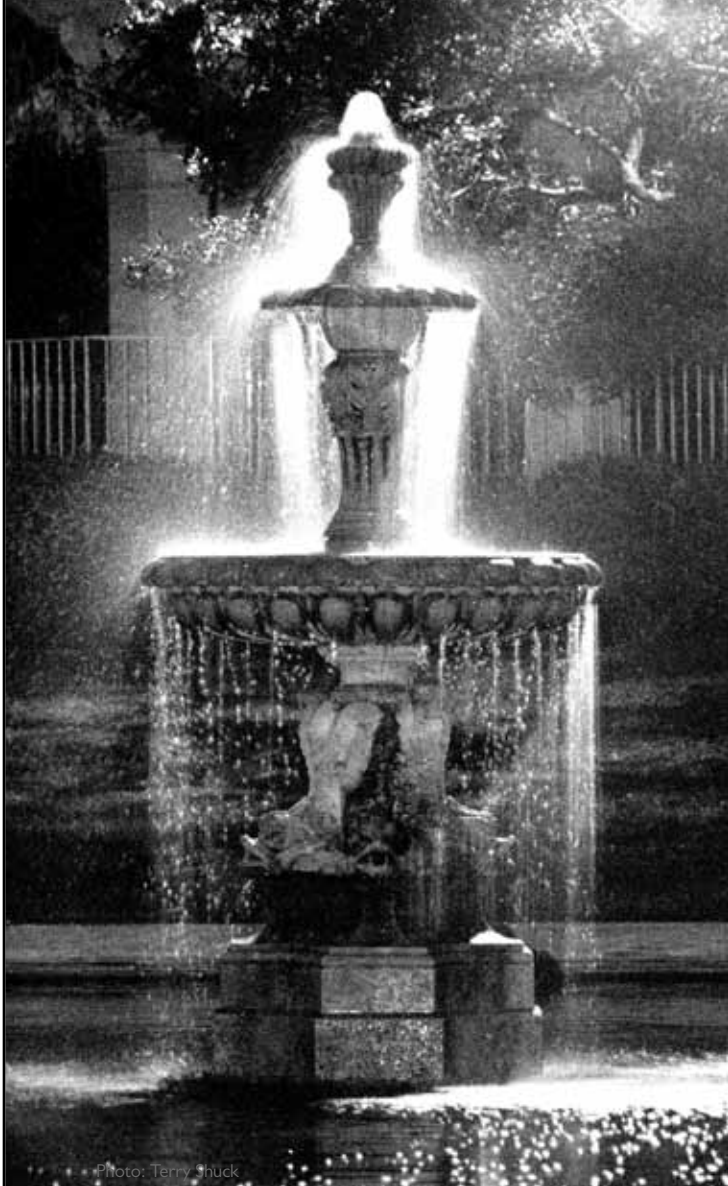


Photo: Terry Shuck

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[shass.mit.edu/undergraduate/minors](http://shass.mit.edu/undergraduate/minors)

# MIT to present new ‘Infinite corridor east’ vision tonight

MIT will appear before the Cambridge Planning Board tonight to present a preview of zoning changes for the campus east of Ames St., which it intends to file with the City later this month. The meeting is at 7 p.m. at 344 Broadway, the City Hall Annex. MIT’s presentation is not expected to start before 8:15 p.m.

MIT could well disappoint the board with the specificity and scope of its presentation. MIT had previously filed zoning changes in April 2011. Those changes included higher building heights, denser floor area ratios, parking requirements, public open space requirements, etc.

MIT let its petition lapse as the city engaged in substantive discussions about the future of Kendall Square. The City hired Goody Clancy & Associates with a \$350,000 contract to look at the future of Kendall and Central Squares (the K2C2 study) — that process is now drawing to a close, and recommendations for Kendall have been presented to the planning board. They will see Central recommendations for the first time at the beginning of tonight’s meeting.

The board said on Nov. 20 that it expected MIT to present a clear preview of its zoning proposal prior to filing, because of limits on how a proposal could be amended once filed. In September, the board had asked MIT to work jointly with it to produce a zoning petition supported by both MIT and the board.

It’s not clear if that will happen tonight. At a private meeting with the city last week, MIT declined to provide specifics of its zoning proposal.

“Tuesday night will be more of an overarching summary of principles and planning concepts” and not of zoning language, said Sarah E. Gallop, MIT’s community liaison, in an email. Gallop said that there would be an overview of the zoning tonight but that detailed discussion of zoning would not happen until after MIT files its petition.

Gallop said MIT intends to “show the evolution of the proposal since we originally filed in April 2011 and the significant areas of alignment among the various stakeholders — planning board, city staff, K2 [K2C2] process, [faculty 2030] task force, etc.”

— John A. Hawkinson

# City of Cambridge gets new City Manager

On Monday night, the Cambridge City Council voted eight to one to install Deputy City Manager Richard Rossi as City Manager for a three-year term beginning June 30, 2013. The current City Manager, Robert Healy, has held the position for over thirty years, but announced this May that he would retire. Rossi has also been a longtime member of Cambridge governance, serving as Deputy City Manager since 1981.

At Monday’s meeting, much of the public comment section was filled with Cambridge residents discussing Rossi’s potential appointment. Those lending their support to Rossi discussed his experience as a member of Cambridge management and suggested his appointment would avoid a long and expensive search for Healy’s replacement that would likely still name Rossi Interim City Manager.

Several residents, however, strongly opposed the direct appointment. Most of the commenters did

not question Rossi’s qualifications directly, but instead claimed that the City Council was avoiding proper civic process with the appointment. Some called for a nationwide search for a new City Manager, and one commenter even compared the Cambridge City Council to a “political machine.”

Before voting on Policy Order 6 to approve Rossi’s appointment, several City Councilors briefly described their reasons for supporting it. Most cited Rossi’s qualifications and the importance of avoiding a more complex or expensive search. Only a simple majority was needed, and it passed with eight votes in the affirmative.

Rossi will have the power to directly appoint the next Deputy City Manager. Councilors suggested amendments requiring a municipal lawyer for Rossi’s new contract. Rossi’s term will last until June 30, 2016.

—Austin Hess

# Summer Study in The Hague



## The Palitz Fellowship for the Study of Dutch Culture and Art

### Scope

Spring semester in preparation with a faculty supervisor; followed by summer in The Hague, Netherlands

### Who may apply?

MIT students may apply no later than the fall term of the junior year. For eligibility requirements and other details, visit [shass.mit.edu/palitz](http://shass.mit.edu/palitz)

### Research areas

Any aspect of painting, history, or culture in the Dutch and Flemish Golden Age, e.g.: the art market; economic history; history of science, horticulture, or cartography; the technologies of print making and book production

### Application process

Application contents include transcript, resume, research proposal, letters of recommendation. For full information and instructions see [shass.mit.edu/palitz](http://shass.mit.edu/palitz)

**Apply by December 18, 2012**  
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Solution to Crossword

from page 5

C	O	O	L	I	O	A	L	P	A	C	I	N	O
E	N	C	A	M	P	G	L	O	M	O	N	T	O
B	A	A	S	E	J	E	C	T	W	H	I	R	
E	T	C	B	O	O	A	L	E	A	C	E		
R	I	O	T	O	U	S	P	I	V	O	T	E	D
G	O	L	I	A	T	H	S	T	E	M			
S	N	A	G								I	M	P
M	U	S	T	H	U	S	K	R	E	S	T	A	R
A	R	C	A	M	Y	T	A	X	C	S	I		
N	C	O	S	I	N	S	E	T	T	H	E	N	
I	H	O	P	E	N	O	T	I	C	H	I	N	G
L	I	T	E	R	A	T	I	N	U	A	N	C	E
A	N	S	W	E	R	E	R	G	E	I	G	E	R

Solution to Sudoku 1

from page 5

2	1	9	5	8	7	4	6	3
3	5	7	6	1	4	9	2	8
4	6	8	9	2	3	1	7	5
1	7	4	3	5	8	2	9	6
5	3	6	2	9	1	7	8	4
8	9	2	7	4	6	3	5	1
7	4	5	1	6	2	8	3	9
9	8	3	4	7	5	6	1	2
6	2	1	8	3	9	5	4	7

Solution to Sudoku 2

from page 5

3	8	7	5	9	2	4	1	6
2	1	6	8	4	7	5	9	3
5	4	9	6	1	3	8	7	2
8	9	2	4	7	1	6	3	5
1	6	3	9	5	8	2	4	7
4	7	5	2	3	6	9	8	1
7	5	8	3	6	4	1	2	9
9	2	1	7	8	5	3	6	4
6	3	4	1	2	9	7	5	8

Baby Techdoku Solution

from page 7

3	2	1
2	1	3
1	3	2

Novice Techdoku Solution

from page 7

2	3	1	5	4
3	4	2	1	5
5	1	4	3	2
1	2	5	4	3
4	5	3	2	1

Apprentice Techdoku Solution

from page 7

1	2	3	5	6	4
3	4	5	1	2	6
6	1	2	4	5	3
4	5	6	2	3	1
5	6	1	3	4	2
2	3	4	6	1	5

Sensei Techdoku Solution

from page 7

3	8	6	5	9	7	4	1	2
1	6	4	3	7	5	2	8	9
7	3	1	9	4	2	8	5	6
5	1	8	7	2	9	6	3	4
8	4	2	1	5	3	9	6	7
4	9	7	6	1	8	5	2	3
6	2	9	8	3	1	7	4	5
9	5	3	2	6	4	1	7	8
2	7	5	4	8	6	3	9	1

The Sloan (Course 15) Course Bidding System (Sloanbid)  
Bidding Dates for Spring, 2013 Courses

https://sloanbid.mit.edu

First time logging in? Use your MIT ID as both your log in and password. Follow instructions on the site to change your password or retrieve lost passwords. Once logged in, make sure and check that your information (i.e. program of study and graduation date) is correct.

Institute-wide bidding for Sloan (Course 15) subjects\*:

Opens 9:00 a.m., Thursday, January 3<sup>rd</sup>, 2013  
Closes 5:00 p.m., Thursday, January 10<sup>th</sup>, 2013

Section Swap Round for changing sections of pre-enrolled Sloan (Course 15) subjects:

Opens 9:00 a.m., Monday, January 14<sup>th</sup>, 2013  
Closes 5:00 p.m., Monday, January 21<sup>st</sup>, 2013

Waitlist Round for closed Sloan (Course 15) subjects:

Opens 9:00 a.m., Wednesday, January 23<sup>rd</sup>, 2013  
Closes 5:00 p.m., Wednesday, January 30<sup>th</sup>, 2013

Please contact Scott Alessandro, [salessan@mit.edu](mailto:salessan@mit.edu), if you have questions regarding Sloan (Course 15) Course Bidding.

Successful bids will appear on your Spring Registration and will be posted on the bidding website as of January 14<sup>th</sup> -- write down your password to check results!

*\*For 15.037J, 15.053, 15.058, 15.075J, 15.279, 15.301, 15.310, 15.411, 15.501, 15.516, 15.628, 15.668, and 15.812, you can sign up directly through WebSIS starting December 3<sup>rd</sup>. It is not necessary to bid for these courses.*

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- Comments on: teaching effectiveness, approachability, responsiveness to student progress, and impact

### Nominate by December 14

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[shass.mit.edu/levitan](http://shass.mit.edu/levitan)

MIT SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES



**Locke**, from Page 1

Locke graduated from MIT with a PhD in political science concentrating in political economy in 1989, and first joined the MIT faculty as an assistant professor of international management in 1988. He has remained at MIT since then.

In 2008, Locke earned the seventh highest total compensation at MIT at \$614,649, outranked by only senior administration (e.g. then-President Susan A. Hockfield), MITMCo officials, and other Sloan professors.

## W20Dining, Page 12

Jonte Craighead, UA president, said “We’re in the early stages of trying to get as many ideas as possible. Many things can affect the direction this conversation could go, for example, in terms of new vendors, we’d have to consider factors like vendor requirements, space constraints, etc. We’re looking for potential changes to take effect in academic year 2014.”

—*Deborah Chen*



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EVENTS

DEC. 04 – DEC. 10

TUESDAY

(4:00 p.m. – 5:00 p.m.)

MIT Astrophysics Colloquium: The First Stars and Galaxies — 37-252

(5:30 p.m. – 7:00 p.m.)

Book signing of *Logistics Clusters: Delivering Value and Driving Growth* by Dr. Yossi Sheffi — E14-633

WEDNESDAY

(4:30 p.m. – 6:00 p.m.)

Starr Forum: An American in China talk by James Fallows — E14-674

(6:00 p.m. – 7:00 p.m.)

Will the Workplace of the Future Have Any Workers? How Computerization is Changing the Nature of Work talk by Professor David Autor — 32-141

THURSDAY

(4:15 p.m. – 5:15 p.m.)

Putting IBM Watson to Work — E51-376

(4:30 p.m. – 6:30 p.m.)

Occupy the Future: Justice, Economics, Activism — 26-100

(8:00 p.m. – 10:00 p.m.)

MIT DanceTroupe presents: Fifty Shades of Plié

FRIDAY

(1:00 p.m. – 5:30 p.m.)

Thomas Kuhn’s “Structure of Scientific Revolutions,” 50 Years Later: Reflections on the History, Philosophy, and Sociology of Science — E15-070

SATURDAY

(7:00 p.m., 10:00 p.m.)

LSC shows *The Polar Express* — 26-100

SUNDAY

(12:00 p.m. – 1:00 p.m.)

Sidney Pacific December Brunch — Sidney Pacific Graduate Residence

(1:30 p.m. – 3:00 p.m.)

A Conversation with The Silk Road Ensemble — MIT Museum

MONDAY

(3:00 p.m. – 4:30 p.m.)

The Arab Uprisings as History talk by James L. Gelvin — E25-111

(5:30 p.m. – 8:30 p.m.)

Innovation Series Event: Brewing up Bucks: The Business of Beer, 21+ — 32-123

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An American in China

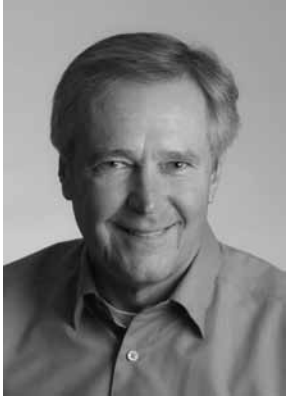
A conversation with James Fallows

Wed, Dec 5, 2012

4:30p - 6:00p

MIT Media Lab, E14-674

75 Amherst St, Cambridge




James Fallows is a national correspondent for The Atlantic and has written for the magazine since the late 1970s. He has reported extensively from outside the United States, and once worked as President Carter’s chief speechwriter.

His latest book, *China Airborne*, was published in early May. Books will be sold at the event.

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Addir



Fellows

What’s religion got to do with MIT?

6 Questions every university should ask

Speakers: Professors Douglas Jacobsen and Rhonda Hustedt Jacobsen

Co-authors of: *No Longer Invisible: Religion in University Education*

MIT Interfaith Dialogue


Thursday, December 6, 2012, 7:15 pm

W11—Main Dining Room,  
Corner Amherst and Mass. Ave.

Dessert will be available.  
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# From Africa to MIT

**By Jaimie Chung**  
*STAFF WRITER*

**I think it's just this desire to participate in whatever is happening on a global scale.**

*Arthur Musah:* I'm at the point in my life where I'm thinking about how did I be-

AM: Different people leave for different reasons but I think a lot of people who come to American universities from Ghana at least are hunting for the best education possible. They are people who are curious about the world. They want to know knowledge. I loved science; I loved learning about the world and my friends did as well, and we were very competitive about doing it. It seemed once we heard about American universities being these beacons, being the best in the world, and once we heard that there were ways to pay for that or to get help with paying for that, it became this goal that we were working towards. I think it's just this desire to participate in whatever is happening on a global scale. A lot of the people that come to seek higher education out here as well see issues that can have an impact on in their communities. They see ways in which they can make their lives better, their families' lives better, and then their communities as well. Part of this hunt for the best and latest knowledge out in the world is to not only plug yourself to this global community and where the world is going today but bring everybody including your country with you as well.

AM: Part of the journey here is to figure out how to reconcile those two desires. I think you know it makes sense that they want to be successful: you want to secure your future, your children's future, your parent's future you know you want to make life easier for them. You want to make them proud. But they're also very conscious of the positions that they're in that they can use to impact their communities or impact the world in general. I don't think they're there yet — because they're at MIT and doing classes 24 hours a day, 7 days a week — but once you graduate and you start working, you do deal a little with “how much do I live for myself?” and “how much do I live for my community?” That's part of the reason I'm making this film. It's part of investigating, “How

AM: Well my approach in this whole thing is really to stick to the intimate sto-

TT: Anything else?

*The project's Kickstarter campaign will be open until December 19. Head over to the blogs at [techblogs.mit.edu](http://techblogs.mit.edu) for the extended interview!*

**S<sup>3</sup>**

- ✓ **For an appointment:** Call 617-253-4861
- ✓ **Walk-in hours, 5-104:** 9-10am, 2-3pm

- **S<sup>3</sup>**
- **Community Wellness**
- **MIT Mental Health & Counseling**
- **Housemasters**
- **GRTs**
- **Area Directors**
- **Advisors**

Extended Hours Dec 3-14	
Monday	9-6
Tuesday	9-6
Wednesday	9-6
Thursday	9-6
Friday	9-5

<http://together.mit.edu>



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# SHEN YUN 2013

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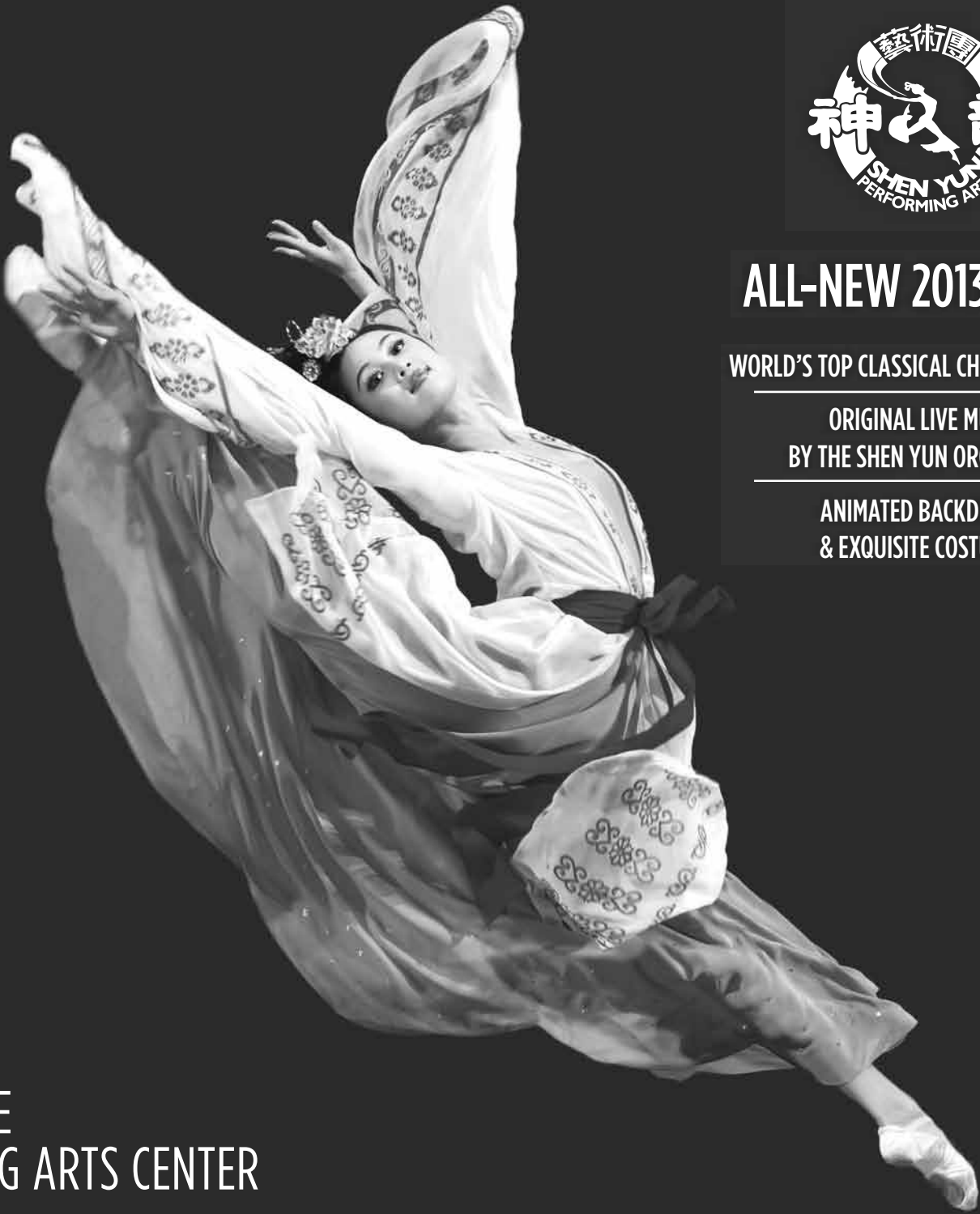


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\*All individuals' quotes originally published by *The Epoch Times* and New Tang Dynasty Television.

## EXPERIENCE 5,000 YEARS OF DIVINELY INSPIRED CULTURE

**F**OR THE PAST 5,000 years, China amassed a diverse legacy of heroes, myths, and values that still resonate in the present. Today, Shen Yun Performing Arts is reviving the world's most ancient heritage in full color through dance and music. This past January, right before the Chinese New Year, Shen Yun sold out Lincoln Center,

introducing an all-new 2012 show to New York City audiences. “It was an extraordinary experience,” said Academy Award-winning actress Cate Blanchett after watching Shen Yun. “The level of skill, but also the power of the archetypes and the narratives were startling. And of course it was exquisitely beautiful.” Shen Yun captures the spirit of ancient China, recalling the

grandeur of a culture long lost. The show moves quickly from one story, region, and dynasty to the next. Down in the valley, ladies of the Yi ethnic group dance in rainbow skirts by the river. In the heavens, celestial fairies trail silken sleeves through the clouds. Resounding drums awaken the dusty plateaus of the Middle Kingdom. Gorgeous backdrops extend

the stage, transporting the audience to distant lands and eras. An orchestra, combining Western and Chinese instruments like no other, accompanies with stirring scores. Dancers fly across the stage in an array of flips, spins, jumps, and aerials. The energy of classical Chinese dance is contagious; the entire performance, mesmerizing. “Fantastic!” says Joy Behar,

from ABC's *The View*. “If you ever get a chance to see it, you should.” **GLOBAL PHENOMENON THAT CANNOT BE SEEN IN CHINA** After performing before full houses across Asia and North America, New York-based Shen Yun Performing Arts is returning to *three New England cities* for a limited

8-show engagement. Shen Yun cannot be seen in China today where traditional culture has been mostly destroyed under communist rule. Yet, Shen Yun has become a global cultural sensation bringing the virtues and wisdom of traditional Chinese culture to millions of people across four continents. Discover what art was meant to be. Discover Shen Yun.

SPORTS SHORT

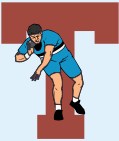
Justin Bullock sets new MIT Track and Field Record

Junior Justin L. Bullock finished in third place at Northeastern University's Jay Carisella Track and Field Invitational, held at the Boston University Track and Tennis Center. He crossed the line in 8:19.12, breaking the MIT record of 8:20.69 set by Ben Schmeckpeper in 2005.

Bullock was the lone MIT runner to attend the invitational. He last competed at the NCAA Division III New England Region Cross Country Championship three weeks ago.

MIT has an unofficial Intrasquad Meet on 12/15, and an Alumni Meet on 1/12, but will not compete intercollegiately until 1/19 in the Harvard Open.

—Charlotte Brackett, DAPER Staff



Men's basketball rolls past Newbury College, wins 91-76

Engineers shot 50 percent from behind the arc

By Phil Hess  
DAPER STAFF

Senior Will Tashman had a double-double of 22 points and 14 rebounds as MIT rolled past Newbury College, 91-76. It was a good afternoon for three-point shooting in Rockwell Cage as the Engineers shot 50 percent from behind the arc and the Nighthawks hit 48 percent of their attempts, led by a 7-of-10 performance by Tim Young '13, who finished with 25 points.

Newbury (2-4) used three-point shooting to keep the game close for most of the first half. Young's first trey of the game put the Nighthawks up 5-4 a minute and half in and his second extended Newbury's lead to 8-5 at the 17:41 mark. The game was back and forth over the first six minutes, with five lead changes and four ties.

Trailing by two, Newbury made the first move of the game. Started by a trey by junior Steve Rosemond that put the Nighthawks up by one, Newbury went on what turned out to be a 13-5 run. Young nailed a pair of threes and junior Kwame Thompson hit a layup with 10:15 left that

put the Nighthawks up 27-21.

MIT (6-1) immediately responded, outscoring Newbury 9-2 over the next two and a half minutes to tie the game at 29-all on a pair of free throws by Mitchell Kates '13. The Nighthawks took the lead back on another Thompson layup, but senior Jimmy Burke nailed a three that put MIT back in front for good. Led by back-to-back layups by Andrew M. Acker '15, the Engineers went on to outscore Newbury, 12-5, the rest of the half to take a 44-36 lead into the locker room.

Jimmy Burke nailed a three that put MIT back in front for good.

The first points of the second half came on another trey from Young, but the Nighthawks could not get any closer than five the rest of the way. MIT scored early on several times in the post before Matt M. Redfield '15 hit a three at the 16:10 mark that gave the Engineers a double-digit lead at 54-44 and forced a Newbury timeout.

MIT increased its lead to 14 points on a Redfield basket before

Newbury closed to within seven after a pair of free throws from Rosemond with 14 minutes left. Another Burke three, however, prevented the Nighthawks from getting any closer as the Engineers pulled their lead back to 15 points at 66-51 after a Tashman free throw with 12:48 left.

MIT maintained its double-digit lead for nearly the rest of the game. Newbury got the deficit back down to eight after Thompson hit on a layup, but by then there was only 1:47 left in the game. Ryan Frankel '16 hit a triple to push the lead back to double figures as the Engineers went on to score the final seven points of the contest.

MIT placed five players in double figures in scoring, with Burke finishing with 16 points, Kates 15, and Redfield and Acker with 13 each. Rosemond finished with 20 points for Newbury, with senior Peterson Bernard adding eight points and leading the team with 10 rebounds. MIT outshot Newbury, 54.8 to 46.7 percent as well as finishing with a 42-27 advantage on the boards.

MIT will host UMass in its next game, taking on the Beacons next Tuesday at 8:00 p.m. in Rockwell Cage. Newbury will play again on Tuesday as well, hosting Wheelock College at 8:00 p.m.

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UPCOMING HOME EVENTS

Tuesday, December 4

Women's Basketball vs. U.S. Coast Guard Academy

6:00 p.m., Rockwell Cage

Men's Basketball vs. UMass Boston

8:00 p.m., Rockwell Cage

This space donated by The Tech



TICKET SALES

10am-5pm

lobby10 (nov 26-30)

student center (dec 03-07)



SHOW TIMES

dec6 8pm, dec7 7&10pm, dec8 1&4pm

Little Kresge

MIT dancetroupe  
presents:

Fifty  
Shades  
of Plié



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